Answer on Question #51202 – Math – Set Theory

Given that S = { a, b, c, d, e} and T = {a, c, e}, then one of these is untrue

a. T is a subset of S

b. $T \subseteq S$

c. $S \neq T$

d. $S \subseteq T$

Solution

a. T is subset of S. It means that S includes all elements of T. It is **true**, because S also has elements a, c and e.

b. $T \subseteq S$. It means that T is subset of S. It is the same as case **a. True.**

c. $S \neq T$. It means that S and T consist of different elements. It is **true**, because S has elements b and d, which are not elements of T.

d. $S \subseteq T$. It means that T includes all elements of S. It is **false,** because T doesn't contain elements b and d.

Answer: d. $S \subseteq T$ is not true.